

# **EXHIBIT 19**

Page 1

1 UNITED STATES DISTRICT COURT  
2 NORTHERN DISTRICT OF CALIFORNIA  
3 SAN FRANCISCO DIVISION

4 -----X  
5 IN RE GOOGLE PLAY STORE

6 ANTITRUST LITIGATION

7 Case No. 3:21-md-02981-JD

8  
9 THIS DOCUMENT RELATES TO:

10 Epic Games Inc. v. Google LLC, et al.,

11 Case No. 3:20-cv-05671-JD

12 In Re Google Play Consumer  
13 Antitrust Litigation  
14 Case No. 3:20-cv-05671-JD

15 In Re Google Play Developer  
16 Antitrust Litigation,  
17 Case No: 3:20-cv-05792-JD

18 State of Utah, et al., v.  
19 Google LLC, et al.,  
20 Case No: 3:21-cv-05227-JD

21 -----X  
22  
23  
24 VIDEOTAPE DEPOSITION  
25 HAL SINGER, PH.D.  
Thursday, May 12, 2022  
9:07 a.m. (EST)

Reported by:

Ryan K. Black, RPR, CLR, Notary Public

Page 2

1  
2  
3  
4           **Thursday, May 12, 2022**  
5  
6  
7  
8  
9  
10  
11  
12  
13

Video Deposition of HAL SINGER, PH.D.,  
taken at the Law Offices of Munger, Tolles &  
Olson, LLP, 601 Massachusetts Avenue NW  
Washington, DC, beginning at 9:07 a.m.,  
before Ryan K. Black, a Registered  
Professional Reporter, Certified Livenote  
Reporter and Notary Public and for the  
District of Columbia.

14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

Page 3

1 A P P E A R A N C E S:  
2 CRAVATH, SWAINE & MOORE, LLP  
3 BY: ERIC J. ZEPP, ESQ. - Via Zoom  
4 825 8th Ave  
5 New York, New York 10019  
6 212.474.1000  
7 ezepp@cravath.com  
8 Representing - Epic Games, Inc. In Re:  
9 Epic Games, Inc. v. Google  
10 LLC, et al.  
11  
12 BARTLIT BECK LLP  
13 BY: KARMA M. GIULIANELLI, ESQ.  
14 1801 Wewatta Street  
15 Suite 1200  
16 Denver, Colorado 80202  
17 303.592.3100  
18 karma.giulianelli@bartlitbeck.com  
19 Representing - Consumer Class Plaintiffs  
20  
21 HAUSFELD LLP  
22 BY: AMY ERNST, ESQ. - Via Zoom  
23 325 Chestnut Street  
24 Unit 900  
25 Philadelphia, Pennsylvania 19106  
26 215.985.3270  
27 aernst@hausfeld.com  
28 Representing - Plaintiff Developers  
29  
30 MUNGER, TOLLES & OLSON LLP  
31 BY: JUSTIN R. RAPHAEL, ESQ.  
32 560 Mission Street  
33 27th Floor  
34 San Francisco, California 94105  
35 415.512.4000  
36 justin.rafael@mto.com  
37 Representing - Defendants  
38  
39 ALSO PRESENT:  
40 Emmanuel Pezoa - Legal Videographer  
41 Yajing Jiang, Ph.D - Charles River Associates  
42 Kevin Caves, Ph.D - Econ One

Page 4

1

## I N D E X

2

TESTIMONY OF: HAL SINGER, PH.D PAGE

3

By Mr. Raphael.....6, 391

4

By Mr. Giulianelli.....389

5

## E X H I B I T S

6

EXHIBIT DESCRIPTION PAGE

7

Exhibit 333 Hal Singer Ph.D's Opening Expert Report.....28

8

Exhibit 334 Hal Singer Ph.D's Reply Report...28

9

Exhibit 335 an article titled Digital Economics by Avi Goldfarb and

10

Catherine Tucker.....96

11

Exhibit 336 a document titled Economics Letters - Using Cost Pass-through To

12

Calibrate Demand, by Miller, Remer

13

and Sheu.....117

14

Exhibit 337 an article titled The Antitrust

15

Logit Model For Predicting

16

Unilateral Competitive Effects,

17

by Gregory J. Werden and

18

Luke M. Froeb.....156

19

Exhibit 338 a document titled Expert Report of

20

Michelle M. Burtis, Ph.D.....364

21

22

23

24

25

Page 5

1                   THE VIDEOGRAPHER: Good morning. We are  
2 on the record at 9:07 a.m. on May 12, 2022. This  
3 is the video-recorded deposition of Hal Singer  
4 taken in the matter of In re: Google Play Store  
5 Antitrust Litigation, filed in the United States  
6 District Court, Northern District of California,  
7 San Francisco Division, Case No.  
8 3:21-MD-02981-JD.

9                   My name is Emmanuel Pezoa, from the firm  
10 Veritext Legal Solutions. The court reporter is  
11 Ryan Black, from the firm Veritext Legal  
12 Solutions.

13                  Will the court re -- court reporter  
14 please swear in the witness?

15                  \*        \*        \*

16 Whereupon --

17                  HAL JASON SINGER, PH.D.,  
18 called to testify, having been first duly sworn  
19 or affirmed, was examined and testified as  
20 follows:

21                  \*        \*        \*

22                  THE REPORTER: And, Counsel, if you want  
23 to state your appearances for the record, that  
24 would be great.

25                  MR. RAPHAEL: Sure.

Page 6

1                   Justin Raphael, Munger Tolles & Olson,  
2 for the defendants.

3                   MS. GIULIANELLI: Karma Julianelli,  
4 from Bartlit Beck, for the consumer class.

5                   MS. JIANG: Yajing Jiang from Charles  
6 River Associates.

7                   MR. RAPHAEL: Is there anyone on the  
8 line who wants to introduce themselves?

9                   MS. ERNST: This is Amy Ernst. I'm here  
10 with Hausfeld for the plaintiff developers.

11                  THE VIDEOGRAPHER: Thank you. You may  
12 proceed.

13                  MR. ZEPP: Eric Zepp here, from Cravath  
14 Swaine & Moore, on behalf of Epic Games.

15                  MR. CAVES: I'm Kevin Caves, with Econ  
16 One on behalf of the Commercial developers.

17                   EXAMINATION

18 BY MR. RAPHAEL:

19 Q. All right. Dr. Singer, will you just  
20 state your name for the record?

21 A. Hal Jason Singer.

22 Q. And, Dr. Singer, you've been deposed  
23 many times; is that right?

24 A. Yes.

25 Q. How many times would you say you've been

1 BY MR. RAPHAEL:

2 Q. And developers are the sellers of the  
3 apps and the subscriptions and the in-app  
4 purchases.

5 MS. GIULIANELLI: Objection.

6 THE WITNESS: I think it's fair to say  
7 the developers are the sellers of those -- those  
8 three items, yes.

9 BY MR. RAPHAEL:

10 Q. And users are the buyers of those three  
11 items?

12 A. Correct.

13 Q. And developers and users are buying a  
14 matching service from Google when they're using  
15 Google Play.

16 MS. GIULIANELLI: Objection.

17 THE WITNESS: Certainly in the -- what I  
18 would call "the Android app distribution market"  
19 that -- that Google is contributing valuable  
20 matchmaking services in that -- in that initial  
21 market -- mark -- in -- in a service for which  
22 Google should be compensated.

23 BY MR. RAPHAEL:

24 Q. Now -- and Google's prices for the Play  
25 Store, whether they're positive or negative,